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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Tsann-Long Su et al.                      Art Unit : 1614  
Serial No. : 10/799,576                                      Examiner : Unknown  
Filed : March 12, 2004  
Title : 9-ANILINOACRIDINE ALKYLATING AGENTS

Commissioner for Patents  
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INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: July 13, 2004

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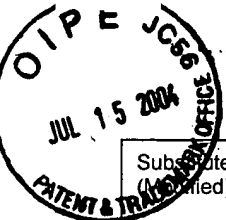
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Substitute Form PTO-1449 (Pre-filled)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08919-118001	Application No. 10/799,576
<b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))		Applicant Tsann-Long Su et al.	
		Filing Date March 12, 2004	Group Art Unit 1614

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AA	Arcamone, F. M.; Animati, F. A.; Configliacchi, E.; D'Alessio, R.; Geroni, C.; Giuliani, F. C.; Lazzari, E.; Menozzi, M.; Mongelli, N.; Penco, S.; Verini, M. A. Synthesis, DNA-Binding Properties, and Antitumor Activity of Novel Distamycin Derivatives. J. Med. Chem. 1989, 32, 774-778.
	AB	Baraldi, P. G.; Balboni, G.; Romagnoli, R.; Spalluto, G.; Cozzi, P.; Geroni, C.; Mongelli, N.; Rutigliano, C.; Bianchi, N.; Gambari, R. PNU 157977: A New Potent Antitumor Agent Exhibiting Low in vivo Toxicity in Mice Injected with L1210 Leukemia Cells. Anti-Cancer Drug Desig, 1999, 14, 71-76.
	AC	Baraldi, P. G.; Romagnoli, R.; Guadix, A. E.; Pineda des las Infantas, M. J.; Gallo, M. A.; Espinosa, A.; Martinez, A.; Bingham, J. P.; Hartley, J. A. Design, Synthesis, and Biological Activity of Hybrid Compounds between Uramustine and DNA Minor Groove Binder Distamycin A. J. Med. Chem. 2002, 45, 3630-3638.
	AD	Baraldi, P. G.; Romagnoli, R.; Pavani, M. G.; Nunez, M. del C.; Bingham, J. P.; Hartey, J. A. Benzoyl and Cinnamoyl Nitrogen Mustard Derivatives of Benzoheterocyclic Analogues of Tallimustine: Synthesis and Antitumor Activity. Bioorg. & Med. Chem. 2002, 10, 1611-1618.
	AE	Becker, A. and Rickard, R. W. An Expedient Synthesis of 3-Amino-5-hydroxy- benzoic acid and its N-Alkyl Analogues. Tetrahedron, 1983, 39, 4189-4192.
	AF	Brendel, M. Ruhland, A. Relationship between functionality and genetic toxicology of selected DNA-damaging agents. Mutat. Res. 1984, 133, 51-85.
	AG	Connors, T.A., Antitumor alkylating agents: Cytotoxic Action and Organ Toxicity. In Schmahl, D. Kaldor, J. M. (eds.) Carcinogenicity of alkylating cytostatic drugs. IACR Sci. Publ. No. 78 (Lyon: IARC). 1986, p. 143-145.
	AH	Cozzi, P.; Beria, I.; Caldarelli, M.; Capolongo, L.; Geroni, C.; Mazzini, S.; Ragg, E. Phenyl Sulfur Mustard Derivatives of Distamycin. Bioorg. & Med. Chem. Letters, 2000, 10, 1653-1656.
	AI	Creech, H. J.; Preston, R. K.; Peck, R. M.; O'Connell, A. P. Antitumor and Mutagenic Properties of a Variety of Heterocyclic Nitrogen and Sulfur Mustards. J. Med. Chem. 1972, 15, 739-746.
	AJ	Denny, W. A.; Atwell, G. J., and Cain, B. F. Potential Antitumor Agents. 32. Role of Agent Base Strength in the Quantitative Structure-Antitumor Relationships for 4'-(9-Acridinylamino)methanesulfonamide Analogues. J. Med. Chem. 1979, 22, 1453-1460.
	AK	Denny, W.A. Acridine-Based Antitumor Agents, In The Chemistry of Antitumor Agents. D.E.V. Wilman Ed.; Blackie, Chapman and Hall: New York, 1990; pp. 1-29.
	AL	Fan, J.-Y.; Valu, K. K.; Woodgate, P. D.; Baguley, B. C.; Denny, W. A. Aniline Mustard Analogues of the DNA-Intercalating Agent Amsacrine: DNA Intercalation and Biological Activity. Anti-Cancer Drug Design, 1997, 12, 181-203.
	AM	Gourdie, T. A.; Valu, K. K.; Gravatt, G. L.; Boritzki, T. J.; Baguley, B. C.; Wakelin, L. P. G.; Wilson, W. R.; Woodgate P. D.; Denny, W. A. DNA-Directed Alkylating Agents. 1. Structure-Activity Relationships for Acridine-Linked Aniline Mustards: Consequences of Varying the Reactivity of the Mustard. J. Med. Chem. 1990, 33, 1177-1186.
	AN	Gravatt, G. L.; Baguley, B. C.; Wilson, W. R.; Denny, W. A. DNA-Directed Alkylating Agents. 4. 4-Anilinoquinoline-Based Minor Groove Directed Aniline Mustards. J. Med. Chem. 1991, 34, 1552-1560.
	AO	Hansson, J.; Lewensohn, R.; Ringborg, U.; Nilsson, B. Formation and removal of DNA cross-links induced by melphalan and nitrogen mustard in relation to drug-induced cytotoxicity in human melanoma cells. Cancer Res. 1987, 47, 2631-2637.

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08919-118001	Application No. 10/799,576
<b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Tsann-Long Su et al.	
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Other Documents (include Author, Title, Date, and Place of Publication)		
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	AP	Hertzberg, R. P.; Dervan, P. B. Cleavage of Double Helical DNA by (Methidium-propyl-EDTA)iron(II). J. Am. Chem. Soc. 1982, 104, 313-315.
	AQ	Köhler, B.; Su, T.-L.; Chou, T.-C.; Jiang, X.-J.; Watanabe, K. A. Synthesis of Cyclopentantraquinones: Analogues of Mitomycin C. J. Org. Chem. 1993, 58, 1680-1686.
	AR	Kohn, K. W.; Hartley, J. A.; Mattes, W. B. Mechanisms of DNA sequence-selective alkylation of guanine N7 positions by nitrogen mustards. Nucleic Acid Res. 1987, 15, 10531-10549.
	AS	Kohn, K. W.; Orr, A.; O'Connor, P. M. Synthesis and DNA-Sequence Selectivity of a Series of Mono- and Difunctional 9-Aminoacridine Nitrogen Mustards. J. Med. Chem. 1994, 37, 67-72.
	AT	Koyama, M.; Takahashi, K.; Chou, T.-C.; Darzynkiewicz, Z.; Kapuscinski, J.; Kelly, T. R.; Watanabe, K.Y. Intercalating Agents with Covalent Bond Forming Capability. A Novel Type of Potential Anticancer Agents. 2. Derivatives of Chrysophanol and Emodin. J. Med. Chem. 1989, 32, 1594-1599.
	AU	Liu, L. F. DNA Topoisomerase Poison as antitumor Drugs. Annu. Rev. Biochem. 1989, 58, 351-357.
	AV	McClellan, S.; Costelloe, C.; Denny, W. A.; Searcey, M.; Wakelin, L. P. G. Sequence Selectivity, Cross-Linking Efficacy and Cytotoxicity of DNA-Targeted 4-Anilinoquinoline Aniline Mustards. Anti-Cancer Drug Design, 1999, 14, 187-204.
	AW	Peck, R. M.; O'Connell, P.; Creech, H. J. Heterocyclic Derivatives of 2-Chlorethyl Sulfide with Antitumor Activity. J. Med. Chem. 1966, 9, 217-221.
	AX	Perehia, D.; Pullman, A. The molecular electrostatic potential of the B-DNA helix. II. The region of the adenine-thymine base pair. Theor. Chim. Acta. 1979, 50, 351-354.
	AY	Prakash, A. S.; Denny, W. A.; Gourdie, T. A.; Valu, K. K.; Woodgate, P. D.; Wakelin, L. P. G. DNA-directed alkylating ligands as potential antitumor agents: sequence specificity of alkylation by DNA-intercalating acridine-linked aniline mustard. Biochemistry, 1990, 29, 9799-9807.
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	AAA	Rickards, R. W.; Rukachaisirikul, V. 3-Amino-5-hydroxybenzoic acid in Antibiotic Biosynthesis. IX The Status of Reduced Derivatives in Mitomycin Biosynthesis. Aust. J. Chem. 1987, 40, 1011-1015.
	ABB	Robertson, I. G.; Kestell, P.; Dormer, R. A.; Paxton, J. W. Involvement of Glutathione in the Metabolism of the Anilinoacridine Antitumor Agents IC 921 and Amsarcrine. Drug Metab. Drug. Interact. 1988, 6, 371-381.
	ACC	Robertson, I. G.; Palmer, B. D.; Paxton, J. W.; Shaw, G. J. Differences in the Metabolism of the Antitumor Agents Amsarcrine and Its Derivative IC-921 in Rat and Mouse. Xenobiotica 1992, 22, 657-669.
	ADD	Schmahl, D. Carcinogenicity of anticancer drugs and specially alkylating agents. In Schmahl, D. Kaldor, J. M. (eds.) Carcinogenicity of alkylating cytostatic drugs. IACR Sci. Publ. No. 78 (Lyon: IARC). 1986, p. 29-35.
	AEE	Shoemaker, D. D.; Cysyk, R. L.; Gormley, P. E.; Desouza, J. J. V.; Malspeis, L. Metabolism of 4'-(9-Acridinylamino)methanesulfon-m-aniside by Rat Liver Microsomes. Cancer Res. 1984, 44, 1939-1945.
	AFF	Singer, B. The chemical effects of nucleic acid alkylation, and their relationship to mutagenesis and carcinogenesis. Prog. Nucl. Acids Res. Mol. Biol. 1975, 15, 219-284.

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	AGG	Su, T.-L. Development of DNA Topoisomerase II-Mediated Anticancer Agents, 3-(9-Acridinylamino)-5-hydroxymethylaniline (AHMAs) and Related Compounds. Current Med. Chem. 2002, 9, 1677-1688.
	AHH	Su, T.-L.; Chen, C.-H.; Huang, L.-F.; Chen, C.-H.; Basu, M. K.; Zhang, X.-G.; Chou, T.-C. Synthesis and Structure-Activity Relationships of Potential Anticancer Agents: Alkylcarbamates of 3-(9-Acridinylamino)-5-hydroxymethylamine. J. Med. Chem. 1999, 42, 4741-4748.
	AII	Su, T.-L.; Chou, T.-C.; Kim, J. Y.; Huang, J.-T.; Ciszewska, G.; Ren, W.-Y.; Otter, G. M.; Sirotiak, F. M.; Watanabe, K. A. 9-Substituted Acridine Derivatives with long Half-life and Potent Antitumor Activity: Synthesis and Structure-Activity Relationships. J. Med. Chem. 1995, 38, 3226-3235.
	AJJ	Suzukake, K.; Vistica, B. P.; Vistica, D. T. Dechlorination of L-phenylalanine mustard by sensitive and resistant tumor cells and its relationship to intracellular glutathione content. Biochem. Pharmacol. 1983, 32, 165-167.
	AKK	Turner, P. R.; Ferguson, L. R.; Denny, W. A. Polybenzamide Mustards: Structure-Activity Relationships for DNA Sequence-Specific Alkylation. Anti-Cancer Drug Design. 1999, 14, 61-70.
	ALL	Valu, K. K.; Gourdie, T. A.; Gravatt, G. L.; Boritzki, T. J.; Woodgate, P. D.; Baguley, B. C.; Denny, W. A. DNA-Directed Alkylating Agents. 3. Structure-Activity Relationships for Acridine-Linked Aniline Mustards: Consequences of Varying the Length of the Linker Chain. J. Med. Chem. 1990, 33, 3014-3019.
	AMM	Weiss, G. R.; Poggesi, I.; Rocchetti, M.; Demaria, D.; Mooneyham, T.; Reilly, D.; Vitek, L. V.; Whaley, F.; Patricia, E.; von Hoff, D. D.; O'Dwyer, P. A Phase I and Pharmacokinetic Study of Tallimustine [PNU152241 (FCE 24517)] in Patients with Advanced Cancer. Clin. Cancer Res. 1998, 4, 53-59.
	ANN	Wyatt, M. D.; Garbiras, B. J.; Haskell, M. K.; Lee, M.; Souhami, R. L.; Hartley, J. A. Structure-Activity Relationship of a Series of Nitrogen Mustard- and Pyrrole-Containing Minor Groove Binding Agents Related to Distamycin. Anti-Cancer Drug Designs, 1994, 9, 511-525.
	AOO	Wyatt, M. D.; Lee, M.; Hartley, J. A. Alkylation Specificity for a Series of Distamycin Analogues that tether Chloambucil. Anti-Cancer Drug Design, 1997, 12, 49-60.

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